

500W, IP66-Rated, Rugged Industrial, AC-DC Power Supply with Active PFC-input PFC 319-D4 Series (IP66)

- Active power factor correction (PFC)
- Packaged in IP66-rated enclosure
- Internal module ruggedized
- Single regulated output
- Full electronic protection
- Rugged, field-proven design
- N+1 redundancy available



The rugged industrial quality AC-DC power supplies with active power factor corrected input utilize field proven topology to generate the required output power. The units are enclosed in robust, waterproof, die cast aluminum D4 size IP66 packages. The input and output are via sealed cable glands, circular connectors or custom connections. The internal boards are ruggedized and conformal coated for immunity to high levels of shock and vibration. Cooling is by internal conduction to the walls of the IP66 enclosure and by baseplate to an external chassis or cabinet wall, with additional convection via the outside surface. If installed on a heat-sinking surface, cooling is further enhanced and the converters achieve higher output power. An optional built-in redundancy diode allows for parallel and N+1 operation. Full electronic protection, low component count, large design headroom, and the use of components with established reliability contribute to high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage Universal 95-264Vac, 47 - 63Hz Input current: 6Arms at 95V Power Factor is min. 0.97 at full load for the entire input range. Power factor meets EN61000-3-2 Other voltages on request</p>	<p>Output Voltage/Current 12Vdc, 24Vdc, 48Vdc or 125Vdc 500W continuous output power Output is floating; either terminal can be grounded Other outputs and increased output power on request</p>	<p>Efficiency Output voltage dependent. Typically higher than 80% at full load</p>	<p>Indicators None</p>
<p>Input Protection Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p>	<p>Redundancy Diode Not installed. Available as option</p>	<p>Operating Temperature Range -25 °C to 55 °C for full specification Extended temperature ranges available on request</p>	<p>Control Input None</p>
<p>Isolation 2250VDC input to chassis 4300VDC input to output 8mm spacing 1000VDC output to chassis</p>	<p>Line/Load Regulation ±1% combined from zero load to full load</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Output Not installed Optional output Fail Alarm</p>
<p>Standards Designed to meet EN60950-1 and corresponding UL and CSA standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Environmental Protection IP66 enclosure Internal module: Ruggedized Potting of the internal module is also available</p>	<p>Package/Dimensions (W x H x D) <i>Overall dimensions incl. mounting flanges, excluding connectors):</i> 230 x 113 x 448 mm 9.1" x 4.5" x 17.6" <i>Dimensions of enclosure body (excluding connectors):</i> 230 x 110 x 400 mm 9.1" x 4.3" x 15.7"</p>
<p>EMI EN55032 Class A with margins or as required</p>	<p>Output Ripple / Noise Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Weight Approx. 8 kg; 17.6 lb</p>
<p>Switching Frequency 55KHz ±3KHz</p>	<p>Output Overload Protection Rectangular current limiting with short-circuit protection (no hiccup) Thermal shutdown in case of insufficient cooling (self resetting)</p>	<p>Humidity 5-100% condensing</p>	<p>Connections Internal barrier-type terminal block accessible via sealed cable glands. Optional connectors instead of cable glands</p>
<p>Hold Up Time Minimum 10ms at full load for 5% drop of output voltage at nominal input</p>	<p>Output Overvoltage Protection Double regulator loop completely stable and independent of main loop</p>	<p>MTBF 150,000 at 45°C Demonstrated MTBF is significantly higher</p>	<p>RoHS Compliance Compliant</p>
			<p>Warranty Two years subject to application within good engineering practice</p>

The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

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